UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Water Resources Division

AQUIFER-TEST COMPILATION FOR NORTHERN CALIFORNIA

Prepared in cooperation with the
California Department of Water Resources

OPEN-FILE REPORT

Sacramento, California
1963
Revised May 1, 1965

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ILLUSTRATIONS

(Illustrations are at end of report)

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By E. J. McClelland

PURPOSE AND SCOPE OF THIS REPORT

This report is the fourth of a series, the purpose of which is to make available, in standard tabular form, the results of aquifer tests that have been made by various private and public agencies in California. The scope of the compilation is to describe systematically, in a form agreed upon by the California Department of Water Resources and the Geological Survey, the (1) test location, (2) pumping data, (3) well data, and (4) summary of results. The results of these tests occasionally have been published, but usually they have been used only to obtain other information. Consequently, the results of aquifer tests have not always been readily available.

This report was prepared by the U.S. Geological Survey, Water Resources Division, in cooperation with the California Department of Water Resources. It tabulates, through April 1965, the tests that were available for northern California.

DESCRIPTION OF THE AQUIFER-TEST COMPILATION FORM

Location

Well number.--The test is identified by the number assigned to the pumped well by the California Department of Water Resources and the Geological Survey. The well-numbering system identifies wells according to their location in the rectangular system for the subdivision of public land. That part of the number preceding the slash (as in 47N/1W-23A1) indicates the township (T. 47 N.); the number following the slash is the range (R. 1 W.); the digit following the hyphen is the section (sec. 23); and the letter following the section number indicates the 40-acre subdivision of the section as shown in the accompanying diagram. Within each 40-acre tract the wells are numbered serially, as indicated by the final digit. Following the well number, the appropriate base line and meridian are indicated as follows: H, Humboldt; M, Mt. Diablo; S, San Bernardino.

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Quadrangle.--The name, scale, and date of publication of the U.S. Geological Survey topographic map that includes the area of the test.

Location.--The site of the test is referenced by the names of streets, streams and rivers, and cities and county. In some cases, the landowner's name or name of tenant is included. The site of each test is shown on figure 2.

Ground-water basin.--The ground-water basin in which the test was made is identified by the name and number of the basin and subbasin as assigned by the California Department of Water Resources.

Geologic formation.--Names of geologic formations, formation members, and aquifers are those assigned by the agency conducting test and do not necessarily conform to the Geological Survey nomenclature.

Date of test.--The date of the start of test, followed by duration of pumping in minutes or hours, as indicated.

Agency conducting test.--The agency and person in charge of the field test are identified.

Source of test data.--Physical location of the basic data and names of offices or published report containing data or results of test. In all cases, copies of the basic data are on file with the U.S. Geological Survey, Water Resources Division, 650 Capitol Mall, Sacramento, Calif., 95814.

Pumping Data

Pump type, power source, and rating.--Type or name of pump, source of power, and horsepower rating.

Use.--Use of well at time tested.

Discharge.--Average discharge of pumped well, in gallons per minute, during the test.

Maximum drawdown.--Total maximum drawdown, in feet, after indicated pumping time.

Other data.--Any conditions which might affect the accuracy of the pumping data.

Well Data

Well number.--The number of the pumped well is given on the first line; observation wells, on subsequent lines.

Depth.--Depth of well, in feet, below land-surface datum.

Perforations.--Depth of casing perforations in feet, below land-surface datum.

r.--Distance from pumped well to observation well, in feet.

Log.--Types of logs, such as: Driller's and (or) electric.

Analysis.--Availability of chemical analysis of well water indicated by yes or no.

Water-level measurements.--Availability of water-level measurements made during, prior to, or subsequent to the test is indicated by yes or no.

Other data and remarks.--Physical factors that might affect the test results and other information not included in the well-data table.

Summary

Purpose of test.--Purpose as related to determination of aquifer coefficients, ground-water movement, storage capacity, and underflow.

Aquifer thickness.--Thickness, in feet.

Aquifer saturated thickness.--Thickness, in feet.

Specific capacity.--Rate of yield of the pumped well, in gallons per minute per foot of drawdown.

U.S. Geological Survey formation yield factor.--

$$\text{Formation yield factor} = \frac{\text{Specific capacity} \times 100}{\text{Aquifer saturated thickness}}$$

Method of analysis.--Solution utilized, such as: Equilibrium, nonequilibrium, and (or) leaky-aquifer.

Coefficient of transmissibility.--The rate of flow of water, in gallons per day, at the prevailing water temperature, through a vertical strip of the aquifer 1 foot wide with height equal to the saturated thickness of the aquifer and under a unit hydraulic gradient.

Coefficient of permeability.--The rate of flow of water, in gallons per day, through a vertical cross section of 1 square foot under a unit hydraulic gradient.

Coefficient of storage.--The volume of water an aquifer releases from or takes into storage per unit of surface area of the aquifer per unit change in the component of head normal to that surface.

Test evaluation.--On the basis of the following guidelines the tests are evaluated subjectively as poor, fair, good, or excellent.

Poor tests are those for which the pumping cycle was 100 minutes or less, or those in which the water-level fluctuations were small or erratic. A test evaluation of poor does not imply poor field technique.

Fair tests are those for which the pumping cycle was 100 to 500 minutes. All tests using only the pumped well are evaluated poor to fair, unless water-level measurements for both drawdown and recovery cycles are available and the calculated results of the test are mutually consistent.

Good tests are those for which the pumping cycle was 500 minutes or more and for which water-level measurements in the pumped well and the observation wells are available for both drawdown and recovery cycles.

Excellent tests are those for which the pumping cycle was 500 minutes or more and which involved a pumped well and two or more properly spaced observation wells. In addition water-level measurements during drawdown and recovery cycles are available for each well, and the calculated results of the test are mutually consistent.

AQUIFER TESTS

North Coastal Region

Butte Valley

47N/1W-23A1
23H1
24C1

Round Valley

22N/12W- 6P1

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 47N/1W-23A1 M Quadrangle Dorris, 15 min., 1950

Location About 4 miles southwest of Dorris, Siskiyou County

Ground Water Basin North Coastal Region, Butte Valley, 1-3.00

Geologic Formation Lake deposits

Date of Test Aug. 3, 1954 557 min Agency Conducting Test USGS, P. R. Wood

Source of Test Data USGS (GW), Sacramento and WSP 1491

PUMPING DATA
Pump Type, Power Source and Rating Western Land Roller, electric motor, 40 hp

Use Irrigation Discharge Average 950 gpm Maximum Drawdown 35.73 ft. after 557 min.

Other data Discharge varied from 1,017 gpm at beginning of test to 618 gpm at end of test.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
47N/1W-23A1	194	60-136 2/	--	Drillers 1/	yes	yes 3/	no	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks 1. Logged 0-136 ft. 2. Only 136 ft of casing.

3. Starting time uncertain. Prepumping water level 37.7 ft below lsd.

SUMMARY
Purpose of Test Determination of permeability of lake deposits

Aquifer Thickness 160 ft Aquifer Saturated Thickness 160 ft

Specific Capacity 27 USGS Formation Yield Factor 17

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 26,000 gpd/ft Permeability 160 gpd/ft^2 Coefficient of Storage -

Test Evaluation Poor, falling water during latter part of test.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 47N/1W-23H1 M Quadrangle Dorris, 15 min., 1950

Location About 4½ miles south of Dorris, Siskiyou County

Ground Water Basin North Coastal Region, Butte Valley, 1-3.00

Geologic Formation Lake deposits

Date of Test Aug. 3, 1954 592 min Agency Conducting Test USGS, P. R. Wood

Source of Test Data USGS (GW), Sacramento and WSP 1491

PUMPING DATA
Pump Type, Power Source and Rating Johnson, electric motor, 30 hp

Use Irrigation Discharge Average 900 gpm Maximum Drawdown 42.14 ft. after 592 min.

Other data Discharge varied from 1,040 gpm at start of test to 682 gpm at end of test.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
47N/1W-23H1	210	--	--	--	no	yes	no	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Prepumping water level 31.2 ft below land surface.

SUMMARY
Purpose of Test Determination of permeability of lake deposits

Aquifer Thickness - Aquifer Saturated Thickness -

Specific Capacity 21 USGS Formation Yield Factor -

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 24,000 gpd/ft Permeability - Coefficient of Storage -

Test Evaluation Poor, falling water during latter part of test.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 47N/1W-24C1 M Quadrangle Dorris, 15 min., 1950

Location About 4 miles south of Dorris, Siskiyou County

Ground Water Basin North Coastal Region, Butte Valley, 1-3.00

Geologic Formation Lake deposits

Date of Test Aug. 3, 1954 420 min Agency Conducting Test USGS, P. R. Wood

Source of Test Data USGS (GW), Sacramento and WSP 1491

PUMPING DATA
Pump Type, Power Source and Rating

Use Irrigation Discharge Average 1,000 gpm Maximum Drawdown 36.4 ft. after 420 min.

Other data Discharge varied from 1222 gpm at start of test to 949 gpm at end of test.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
47N/1W-24C1	190	40-190	--	Drillers	no	yes	yes	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks

SUMMARY
Purpose of Test Determination of permeability of lake deposits.

Aquifer Thickness 166 ft Aquifer Saturated Thickness 166 ft

Specific Capacity 27 USGS Formation Yield Factor 16.5

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 38,000 gpd/ft Permeability 230 gpd/ft^2 Coefficient of Storage -

Test Evaluation Poor, well pumps sand and air.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 22N/12W- 6P1 M Quadrangle Covelo, 15 min., 1952

Location About half a mile southeast of the center of Covelo, Mendocino Co.

Ground Water Basin North Coastal region, Round Valley 1-11.00

Geologic Formation Alluvium

Date of Test Aug. 10, 1960 24 hr Agency Conducting Test USBR W. R. Cooke

Source of Test Data USBR or USGS(GW) Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Diesel engine

Use Test well Discharge 1275 gpm Maximum Drawdown 57.9 ft. after 1448 min.

Other data Prepumping water level 5.9 ft below land surface

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
22N/12W-6P1	525	125-515 1/	--	Drillers	yes	yes	yes	no
22N/12W-6L3	660	100-660	472	Electric 2/ Drillers	yes	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks 1. Casing cemented in above 40 ft, gravel packed.

2. Cored 418 ft.

SUMMARY
Purpose of Test Determination of aquifer coefficients.

Aquifer Thickness ____ Aquifer Saturated Thickness ____

Specific Capacity 22 USGS Formation Yield Factor 5.6

Method of Analysis Theis nonequilibrium

Coefficient of Transmissibility 29000 gpd/ft 3/ Permeability ____ Coefficient of Storage 0.002

Test Evaluation Fair, no trend data, test may be in a leaky-aquifer system.

3. Leaky-aquifer solution indicates T=15,000 gpd/ft, S=0.002

Central Valley Region

Redding Basin

31N/4W-25Q1

Sacramento Valley, Solano County

7N/1E- 6C1
32H4

8N/1E-20G1

San Joaquin Valley, Mokelumne River Area

4N/9E- 6J
7B

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 31N/4W-25Q1 M Quadrangle Enterprise, 7.5 min., 1957

Location About 2 miles northeast of Anderson, Shasta County

Ground Water Basin Central Valley region, Redding Basin, 5-6.00

Geologic Formation Alluvium

Date of Test Sept. 17, 1957 94 min. Agency Conducting Test USBR R. J. Rongey

Source of Test Data USBR or USGS(GW) Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Test well Discharge 660 gpm Maximum Drawdown 6.99 ft. after 91 min.

Other data Prepumping water level 80.24 ft below land surface

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
31N/4W-25Q1	770	220-770	--	(a)	yes	yes	yes	yes
31N/4W-25Q2	798	-	400	-	no	yes	yes	yes
Unidentified Well	-	-	2200	-	-	yes	no	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks a. Drillers, electric and gamma, partially cored.

SUMMARY
Purpose of Test Determination of aquifer coefficients.

Aquifer Thickness -- Aquifer Saturated Thickness c695 ft

Specific Capacity 95 USGS Formation Yield Factor 14

Method of Analysis Theis nonequilibrium and Theis recovery formulas

Coefficient of Transmissibility 260,000 gpd/ft Permeability 370 gpd/ft^2 Coefficient of Storage 0.085

Test Evaluation Poor, boundary problem or other pumping during test.

c. Prepumping water-level to bottom of hole.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 7N/1E-6C1 M Quadrangle Allendale, 7.5 min., 1953

Location 5¼ miles northwest of Dixon, Solano County

Ground Water Basin Central Valley region, Sacramento Valley, Solano County, 5-21.11

Geologic Formation Older alluvium

Date of Test Mar. 21, 1950 60 hr Agency Conducting Test USGS, H. A. Thomasson, Jr.

Source of Test Data USGS (GW), Sacramento and WSP 1464

PUMPING DATA
Pump Type, Power Source and Rating U.S., electric motor, 10 hp

Use Irrigation Discharge 395 gpm Maximum Drawdown 8.45 ft. after 3577 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
7N/1E-6C1	92	--	--[1]	Drillers	no	yes	yes	yes
7N/1E-6C2	80	Sand point 71-74	49	Drillers	no	yes	yes	yes
7N/1E-6C3	68	Gravel packed 34-67	96	Drillers	no	yes	yes	yes
7N/1E-6C4	75	Sand point[2] 62-65	196	Drillers	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks 1. Gravel packed 29-80 ft. 2. Gravel packed 12-75 ft.

SUMMARY
Purpose of Test Determination of aquifer coefficients.

Aquifer Thickness Average 32 ft Aquifer Saturated Thickness Average 32 ft.

Specific Capacity 48 USGS Formation Yield Factor 146

Method of Analysis Nonequilibrium

Coefficient of Transmissibility Average 110,000 gpd/ft Permeability Average 3500 gpd/ft^2 Coefficient of Storage 0.01-0.22[3]

Test Evaluation Fair, water pumped may have come from more than one aquifer.

3. Not considered valid.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 7N/1E-32H4 M Quadrangle Allendale, 7.5 min., 1953

Location About 4½ miles southwest of Dixon

Ground Water Basin Central Valley region, Sacramento Valley, Solano County, 5-21.11

Geologic Formation Alluvium

Date of Test Mar. 14, 1950 8 hr Agency Conducting Test USGS, H. G. Thomasson, Jr.

Source of Test Data USGS (GW), Sacramento and WSP 1464

PUMPING DATA
Pump Type, Power Source and Rating Gasoline engine

Use Irrigation Discharge 500 gpm Maximum Drawdown - ft. after - min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
7N/1E-32H4	178	--	--	--	no	no	yes	yes
7N/1E-32H1	150	Gravel packed 60-150	--	--	no	yes	yes	yes
7N/1E-32H5	61	--	--	--	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Water level recovered to 34.85 ft below land surface 2460 min. after pumping stopped.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness - Aquifer Saturated Thickness Approx. 144 ft

Specific Capacity - USGS Formation Yield Factor -

Method of Analysis nonequilibrium

Coefficient of Transmissibility 30,000-50,000 gpd/ft Permeability 200-350 gpd/ft^2 Coefficient of Storage -

Test Evaluation Fair

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 8N/1E-20G1 M Quadrangle Winters, 7.5 min., 1953

Location About 6½ miles northwest of Dixon, Solano County

Ground Water Basin Central Valley region, Sacramento Valley, Solano County, 5-21.11

Geologic Formation Older alluvium

Date of Test Apr. 27, 1950 91 hr Agency Conducting Test USGS, H. G. Thomasson, Jr.

Source of Test Data USGS (GW), Sacramento and WSP 1464

PUMPING DATA
Pump Type, Power Source and Rating D.W., electric motor, 10 hp

Use Irrigation Discharge 600 gpm Maximum Drawdown 11.70 ft. after 5458 min.

Other data

WELL DATA

Well No.	Depth	Gravel Pack	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
8N/1E-20G1	90	24-45 47-80	--	Drillers	no	yes	yes	yes
8N/1E-20G2	71	33-71	51	Drillers	no	yes	yes	yes
8N/1E-20G3	68	34-68	97	Drillers	no	yes	yes	yes
8N/1E-20G4	69	1/	172	Drillers	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks 1. Sand point 63½-66½ ft, gravel pack 34-69 ft.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness Average 30 ft Aquifer Saturated Thickness Average 30 ft

Specific Capacity 51 USGS Formation Yield Factor 170

Method of Analysis Nonequilibrium

Coefficient of Transmissibility Average 120,000 gpd/ft Permeability Average 4000 gpd/ft^2 Coefficient of Storage 0.04-0.32 2/

Test Evaluation Fair, permeability variations in stratified aquifer.

2. Not considered valid.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 4N/9E-6J[1] M Quadrangle Clements, 7.5 min., 1952

Location Right abutment of Camanche Dam site, San Joaquin County

[1]Approximate location, no well numbers assigned by USGS

Ground Water Basin San Joaquin Valley, Mokelumne River area, 5-22.01

Geologic Formation Mehrten Formation

Date of Test January 1961 Agency Conducting Test Bechtel Corp.

Source of Test Data East Bay Municipal Utility District, Camanche Dam and Reservoir geologic report, prepared by Bechtel Corp.

PUMPING DATA
Pump Type, Power Source and Rating -

Use - Discharge - Maximum Drawdown - ft. after - min.

Other data This sheet presents a series of five slug tests, one test on each of the wells listed below.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
OW-5	57	-	-	-	-	-	yes	yes
OW-6	60	-	-	-	-	-	yes	yes
OW-7	63	-	-	-	-	-	yes	yes
OW-8	65	-	-	-	-	-	yes	yes
ADH-120	144	-	-	-	-	-	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks All wells are located within 100 ft of OW-6

SUMMARY
Purpose of Test Determination of permeability of foundation materials at Camanche Dam site.

Aquifer Thickness - Aquifer Saturated Thickness 68 ft

Specific Capacity - USGS Formation Yield Factor -

Method of Analysis Ferris slug-test formula

Coefficient of Transmissibility Average 113 gpd/ft Permeability Average 1.66 gpd/ft Coefficient of Storage -

Test Evaluation Not evaluated

NOTE: Results in summary are from ADH-120.

LOCATION
Well no. 4N/9E-7B[1] M Quadrangle Clements, 7.5 min., 1952

Location Left abutment of Camanche Dam site, San Joaquin County

[1]Approximate location, no well numbers assigned by USGS

Ground Water Basin San Joaquin Valley, Mokelumne River area, 5-22.01

Geologic Formation Mehrten Formation

Date of Test 1-12-61 (18 hr 25 min) Agency Conducting Test Bechtel Corp.

Source of Test Data East Bay Municipal Utility District, Camanche Dam and Reservoir geologic report, prepared by Bechtel Corp.

PUMPING DATA
Pump Type, Power Source and Rating -

Use Unknown Recharge Discharge Average 197 gpm Maximum Drawdown - ft. after - min.

Other Data Water was pumped into an existing 5-ft-diameter shaft while water levels were observed in four observation wells.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
Old shaft	88	-	-	drillers	no	no	no	no
OW-1	150	-	30	-	no	yes	yes	no
OW-2	100	-	20	-	no	yes	yes	no
OW-3	100	-	40	-	no	yes	yes	no
OW-4	100	-	60	-	no	yes	yes	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Drawdown refers to the recharge cycle. Some pretest measurements were made on each observation well.

SUMMARY
Purpose of Test Determination of permeability of foundation materials at Camanche Dam site.

Aquifer Thickness - Aquifer Saturated Thickness 80 ft

Specific Capacity - USGS Formation Yield Factor -

Method of Analysis Theim equilibrium and Theis nonequilibrium formulas

Coefficient of Transmissibility 2,700-3,500 gpd/ft Permeability 33-44 gpd/ft^2 Coefficient of Storage -

Test Evaluation Not evaluated

San Francisco Bay Region

Santa Clara Valley

5S/2W-18E3

South Alameda County

4S/1W- 7G3
21P6
28D9
4S/2W-21G1

5S/1W- 6H1
7N1

5S/2W-12B2

North Santa Clara County

6S/1W-23E1[3/]

6S/2W-17R2

7S/1E-16C5[2 3/]

7S/1W- 2G5
27P4

Livermore Valley

3S/1E- 7E2
32K2

4S/1E-30K1

2. More than one test.
3. Observation well number.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 5S/2W-18E3 M Quadrangle Palo Alto, 7.5 min., 1953

Location About 150 ft north of paved road and 150 ft west of Moseley Duck Club building at west end of Dumbarton Bridge, San Mateo County

Ground Water Basin San Francisco Bay Region, Santa Clara Valley, 2-9.00

Geologic Formation Alluvium

Date of Test Jan.12, 1965 1,335min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating turbine, electric motor, 20 hp

Use irrigation Discharge 305 gpm Maximum Drawdown 43.56 ft. after 45 min.

Other data Water-level in wells subject to large tidal fluctuations

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
5S/2W-18E3	247	207-216	-	Drillers	no	yes	yes	yes
5S/2W-18E2	250	207-219	750	Drillers	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks 5 other observation wells measured during test, omitted because of no measurable response to pumping or interference caused by other wells pumping.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 8 Aquifer Saturated Thickness 8

Specific Capacity 7.0 USGS Formation Yield Factor 87.5

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 14,700 gpd/ft Permeability 1,840 gpd/ft^2 Coefficient of Storage 0.0005

Test Evaluation not evaluated

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 4S/1W-7G3 M Quadrangle Newark, 7.5 min., 1959

Location Citizens Utilities Tank Road wells, Union City (Decoto), Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test April 22, 1965 300 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating turbine, electric motor, 50 hp

Use Public supply Discharge 377 gpm Maximum Drawdown 10.5 ft. after 300 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
4S/1W-7G3	400	355-385	-	Drillers	yes	yes	yes	yes
4S/1W-7G1	395	362-384	56	Drillers	yes	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Test site about 500 ft from mapped location of fault, no boundary effect noted.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 29 Aquifer Saturated Thickness 29

Specific Capacity 36 USGS Formation Yield Factor 124

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 49,600 gpd/ft Permeability 1,710 gpd/ft^2 Coefficient of Storage 0.001

Test Evaluation Poor, prepumping water-level trend probably present, but not compensated.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 4S/1W-21P6 M Quadrangle Niles, 7.5 min., 1959

Location 660 ft east of intersection of Mowry Ave. and Peralta Blvd., 100 ft north of north edge of Peralta Blvd., Fremont, Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test June 9, 1965 Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Submersible, electric, 200 hp

Use Municipal Discharge 2,570 gpm Maximum Drawdown 7.30 ft ft. after 3.0 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
4S/1W-21P6	200	68-185	-	Drillers	no	yes	yes	yes
21P7	202	75-190	100	Drillers	no	yes	yes	yes
21P9	-	-	100	No	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Wells tap the free ground-water zone above the Hayward Fault

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 162 Aquifer Saturated Thickness 162

Specific Capacity 352 gpm/ft USGS Formation Yield Factor 218

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 3,770,000 gpd/ft Permeability 23,700 gpd/ft^2 Coefficient of Storage 0.98

Test Evaluation Not evaluated-recharge interference may have occurred 3 min. after pumping started.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 4S/1W-28D9 M Quadrangle Niles, 7.5 min., 1953

Location About 1 mile south of Niles, Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test Feb. 10, 1965 1460min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating turbine, electric motor

Use Public Supply Discharge 760 gpm Maximum Drawdown 4.75 ft. after 1,360 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
4S/1W-28D9	175	-	-	Drillers	no	yes	yes	no
4S/1W-28C1	195	122-182	1400	Drillers	no	yes	yes	no
4S/1W-28C10	225	-	550	-	no	yes	yes	yes
4S/1W-28D2	156	-	1100	-	no	yes	no	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 155 Aquifer Saturated Thickness 78

Specific Capacity 160 USGS Formation Yield Factor 205

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 900,000 gpd/ft Permeability 11,540 gpd/ft Coefficient of Storage 0.001

Test Evaluation Poor, other pumping in the vicinity during test and nearby fault barrier limited useful data to 200 min.

LOCATION
Well no. 4S/2W-21G1 M Quadrangle Newark, 7.5 min., 1959

Location North Coyote Hills area, about 1½ mile southwest of Union City (Alvarado), Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test Mar. 30, 1965 300 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Byron Jackson, electric motor, 20 hp

Use Domestic and irrigation Discharge 316 gpm Maximum Drawdown 10.51 ft. after 300 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	How	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
4S/2W-21G1	270	223-270	-	Drillers	yes	yes	yes	yes
4S/2W-21G2	280		550	Drillers	no	yes	yes	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 35 Aquifer Saturated Thickness 35

Specific Capacity 30 USGS Formation Yield Factor 86

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 121,000 gpd/ft Permeability 3,460 gpd/ft^2 Coefficient of Storage 0.0001

Test Evaluation Fair

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 5S/1W-6H1 M Quadrangle Newark, 7.5 min., 1959

Location About 1/4 mile west of Nimitz Freeway - Mowry Ave. interchange, Fremont, Alameda County

Ground Water Basin San Francisco Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test Mar. 2, 1965 182 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Public supply Discharge 250 gpm Maximum Drawdown 1.57 ft. after 200 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
5S/1W-6H1	267	234-259	-	Drillers	no	yes	yes	no
5S/1W-6J1	263		740	Drillers	no	yes	yes	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Gravel noted on log of 6H1, 216-259 ft below land surface

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 45 Aquifer Saturated Thickness 45

Specific Capacity 160 USGS Formation Yield Factor 356

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 174,000 gpd/ft Permeability 3,870 gpd/ft^2 Coefficient of Storage 0.0005

Test Evaluation Poor, unidentified sources of interference apparently present from start of test.

LOCATION
Well no. 5S/1W-7N1 M Quadrangle Newark, 7.5 min., 1959

Location About 1/4 mile west of south end of Mowry Ave., Fremont, Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test Mar. 4, 1965 320 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use irrigation Discharge Approximate 500 gpm Maximum Drawdown 7.54 ft. after 292 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
5S/1W-7N1	254		-	Drillers	no	yes	yes	no
5S/1W-7M1	234	210-226	2200	Drillers	no	yes	yes	no
5S/2W-24B1	220	190-220	7000	Geologists	no	yes	no	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks

SUMMARY
Purpose of Test Determination of aquifer coefficients

Average Aquifer Thickness 27 Average Aquifer Saturated Thickness 27

Specific Capacity 66 USGS Formation Yield Factor 244

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 118,000 gpd/ft Permeability 4,370 gpd/ft^2 Coefficient of Storage 0.00004

Test Evaluation Fair

LOCATION
Well no. 5S/2W-12B2 M Quadrangle Newark, 7.5 min., 1959

Location At salt refinery near intersection of Perrin and Central Avenues and Filbert St., Newark, Alameda County

Ground Water Basin San Francisco Bay Region, South Alameda County, 2-9.01

Geologic Formation Alluvium

Date of Test April 1, 1965 410 min Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR & USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use industrial Discharge 307 gpm Maximum Drawdown 4.62 ft. after 350 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
5S/2W-12B2	235	202-234	-	Drillers	no	yes	yes	no
5S/2W-12B4	352	215-229 320-328	1200	Drillers	no	yes	yes	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Water-level measurements erratic because of oil on water in both wells

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 31 Aquifer Saturated Thickness 31

Specific Capacity 66 USGS Formation Yield Factor 213

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 133,400 gpd/ft Permeability 4,310 gpd/ft^2 Coefficient of Storage 0.0001

Test Evaluation Poor, prepumping water-level trend not compensated.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 6S/1W-23E1 [1/] M Quadrangle Milpitas, 7.5 min., 1953

Location At Agnews State Hospital, Agnew, Santa Clara County

1. Observation well number.

Ground Water Basin San Francisco Bay region, Santa Clara Valley, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Mar. 1, 1961 19½ hr Agency Conducting Test USGS, F. S. Riley

Source of Test Data USGS (GW), Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Irrigation Discharge 335 gpm Maximum Drawdown - ft. after - min.

Other data Preliminary test on Jan. 27, 1961, pumped 350 gpm for about 1½ hr, water-level measurements on 6/1-23E1 only.

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
(2)	--	--	--	Drillers	no	no	yes	
6S/1W-23E1	425	--	1053	--	no	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Water level in 23E1 on 3-10-61, 73.0 ft below land surface.

2. Pumped well not canvassed, no number assigned.

SUMMARY
Purpose of Test Determination of aquifer coefficients in conjunction with tiltmeter test.

Aquifer Thickness - Aquifer Saturated Thickness -

Specific Capacity - USGS Formation Yield Factor -

Method of Analysis nonequilibrium

Coefficient of Transmissibility 38,000 gpd/ft [2/] 22,000 gpd/ft Permeability - Coefficient of Storage -

Test Evaluation Fair, 2. Pumped well and observation well in that order.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 6S/2W-17R2 M Quadrangle Mountain View, 7.5 min., 1961

Location 320 ft northwest of Rengstorff Ave. and 60 ft northeast of Alma St., Mountain View, Santa Clara County

Ground Water Basin San Francisco Bay Region, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Oct. 18, 1964 395 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - W. Hansen

Source of Test Data DWR, USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Submersible, electric motor, 125 hp

Use Municipal Discharge 833 gpm Maximum Drawdown 48.9 ft. after 395 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
6S/2W-17R2	572	258-560	0	Drillers	yes	yes	yes	yes
6S/2W-21D3	572	232-560	1500	Drillers	yes	yes	yes	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks The values for aquifer thickness are based on total perforated zone (max.) and actual thickness of coarse fraction (min.) as shown on the well log.

SUMMARY
Purpose of Test Determination of aquifer coefficients.

Aquifer Thickness 189 min. 282 max. Aquifer Saturated Thickness 189 min. 282 max.

Specific Capacity 16.8 USGS Formation Yield Factor 8.9 max. 6.0 min.

Method of Analysis Nonequilibrium, leaky aquifer solution

Coefficient of Transmissibility 59,600 gpd/ft Permeability 211 gpd/ft min. 315 gpd/ft max. Coefficient of Storage 1.27×10^{-4}

Test Evaluation Poor, rising regional water-level trend and/or leaky aquifer conditions may have influenced test data.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 7S/1E-16C5[1/] M Quadrangle San Jose East, 7.5 min., 1953

Location San Jose Water Works, 12th St. Station, San Jose, Santa Clara County.

1. Observation well number.

Ground Water Basin San Francisco Bay region, Santa Clara Valley, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Mar. 8, 1961 329 min. Agency Conducting Test USGS, F. S. Riley

Source of Test Data USGS (GW), Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Public Supply Discharge 1600 gpm Maximum Drawdown Approx. 16 ft. after 293 min.

Other data

WELL DATA

Well No. [2/]	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
SJWW no. 5	801	454-788	--	Drillers	-	no	no	no
7S/1E-16C5	908	--	222	--	no	yes	yes	yes
SJWW no. 6	794	564-772	280	Drillers	-	yes	no	no
SJWW no. 7	725	526-682	100	Drillers	-	yes	no	no
SJWW no. 8	716	508-697	301	Drillers	-	yes	no	no
SJWW no.11	870	306-842	195	Drillers	-	yes	no	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Prepumping water level approx. 154 ft below land surface.

2. San Jose Water Works numbers

SUMMARY
Purpose of Test Determination of aquifer coefficients in conjunction with tiltmeter test.

Aquifer Thickness - Aquifer Saturated Thickness 630 ft

Specific Capacity Approx. 100 USGS Formation Yield Factor Approx. 16

Method of Analysis nonequilibrium

Coefficient of Transmissibility Average 640,000 gpd/ft Permeability Average 1,000 gpd/ft Coefficient of Storage Average 0.001

Test Evaluation Fair, probably leaky aquifer conditions.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER-TEST COMPILATION

LOCATION
Well no. 7S/1E-16C5 [1] M Quadrangle San Jose East, 7.5 min., 1953

Location San Jose Water Works, 12th St. Station, San Jose, Santa Clara County. 1. Observation well number

Ground Water Basin San Francisco Bay region, Santa Clara Valley, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Mar. 9, 1961 330 min Agency Conducting Test USGS, F. S. Riley

Source of Test Data USGS (GW), Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Public Supply Discharge 1600 gpm Maximum Drawdown Approx. 18 ft. after 165 min.

Other data

WELL DATA

Well No. [2]	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
SJWW no. 5	801	454-788	--	Drillers	-	no	no	no
7S/1E-16C5	908	--	222	--	no	yes	yes	yes
SJWW no.11	870	306-842	195	Drillers	-	yes	no	no

r* = distance from pumped well to observation well in feet.

Other Data and Remarks Prepumping water level approx. 154 ft below land surface.

2. San Jose Water Works numbers

SUMMARY
Purpose of Test Determination of aquifer coefficients in conjunction with tiltmeter test.

Aquifer Thickness - Aquifer Saturated Thickness 630 ft

Specific Capacity Approx. 89 USGS Formation Yield Factor Approx. 14

Method of Analysis nonequilibrium

Coefficient of Transmissibility Average 700,000 gpd/ft Permeability Average 1,000 gpd/ft^2 Coefficient of Storage 0.001

Test Evaluation Fair, probably leaky aquifer conditions.

LOCATION
Well no. 7S/1W-20G M Quadrangle San Jose West, 7.5 min., 1961

Location 150 feet southwest of Railroad Ave., 320 feet southeast of Benton St., 0.2 mile northeast of U.S. Highway 101, Santa Clara, Santa Clara County

Ground Water Basin San Francisco Bay Region, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Dec. 16, 1964 97 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - D. Ralston

Source of Test Data DWR, USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating turbin, electric motor, 100 hp

Use Public Supply Discharge 1,305 gpm Maximum Drawdown 44.8 ft. after 96.5 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements: Drawdown	Recovery	Historical
7S/1W-20G	864	660-814	-	Drillers	-	yes	yes	no
7S/1W-20H	797	360-776	120	Drillers	-	yes	no	no

* r = distance from pumped well to observation well in feet.

Other Data and Remarks Observation well not used due to oil on water and small drawdown.

ANALYSIS
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 50 Aquifer Saturated Thickness 50

Specific Capacity 29.1 USGS Formation Yield Factor 58.2

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 91,600 gpd/ft Permeability 1,830 gpd/ft^2 Coefficient of Storage -

Test Evaluation Poor, results based on pumped well only, pump started by automatic switch after end of pumping cycle.

LOCATION
Well no. 7S/1W-27P4 M Quadrangle San Jose West, 7.5 min., 1961

Location Campbell Water Co. well - 290 ft north of West Campbell, 150 ft west of Dot Avenue, Campbell, Santa Clara County

Ground Water Basin San Francisco Bay Region, North Santa Clara County, 2-9.02

Geologic Formation Alluvium

Date of Test Nov. 17, 1964 296 min. Agency Conducting Test California Department of Water Resources Bay Area Branch - W. Hansen

Source of Test Data DWR, USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Submersible - electric - 100 hp

Use Public Supply Discharge 708 gpm Maximum Drawdown 45.0 ft. after 290.5 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
7S/1W-27P4	775	320-775	-	Drillers	no	yes	no	
7S/1W-27P2	673	328-668	121	Drillers	no	yes	no	yes
7S/1W-27P3	700	182-422	295	Drillers	no	yes	no	yes

r* = distance from pumped well to observation well in feet.

Other Data and Remarks The values for aquifer thickness are based on total perforated zone (max.) and actual thickness of coarse fraction (min.), as shown on the well log.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 113 ft. min. 280 ft. max. Aquifer Saturated Thickness 113 ft min. 280 ft max.

Specific Capacity 15.7 USGS Formation Yield Factor 13.9 max. 5.6 min.

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 28,500 gpd/ft Permeability 102 gpd/ft^2 min. 252 gpd/ft^2 max. Coefficient of Storage 6.5×10^{-4}

Test Evaluation Fair

LOCATION

Well no. 3S/1E-7E2 M Quadrangle Dublin, 7.5 min., 1953

Location 2.3 miles northwest of Pleasanton, 5200 ft south of east-bound lane of Highway 50, 2000 ft west of Hopyard Road, Alameda County

Ground Water Basin San Francisco Bay Region, Livermore Valley, 2-10.00

Geologic Formation Quaternary alluvium

Date of Test Nov. 7, 1960 31 min Agency Conducting Test California Department of Water Resources-R. Thronson

Source of Test Data DWR and USGS(GW), Sacramento

PUMPING DATA

Pump Type, Power Source and Rating

Use Test Discharge 90 gpm Maximum Drawdown 11.2 ft. after 31.3 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Use	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
3S/1E-7E2	90	46-90	--	Drillers	yes	yes	yes	no

* r = distance from pumped well to observation well in feet.

Other Data and Remarks

SUMMARY

Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 38 Aquifer Saturated Thickness 38

Specific Capacity 8.04 Well Formation Yield Factor 21.2

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 9130 gpd/ft Permeability 240 gpd/ft^2 Coefficient of Storage

Test Evaluation Poor, too short.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no. 3S/1E-32K2 M Quadrangle Dublin, 7.5 min., 1953

Location 2.3 miles southwest of Pleasanton, 150 ft southeast of Foothill Road and Verona Road, 30 ft west of Foothill Road, Alameda County

Ground Water Basin San Francisco Bay Region, Livermore Valley, 2-10.00

Geologic Formation Quaternary alluvium

Date of Test April 6, 1961 323 min Agency Conducting Test California Department of Water Resources - R. Thronson

Source of Test Data DWR & USGS(GW), Sacramento

PUMPING DATA
Pump Type, Power Source and Rating Turbine pump, electric motor

Use Irrigation Discharge 420 gpm Maximum Drawdown 16.2 ft. after 323 min.

Other data

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
3S/1E-32K2	150	40-58 65-130	--	Drillers	Yes	Yes	Yes	No
3S/1E-32K1	112	--	565	--	No	Yes	Yes	No

r* = distance from pumped well to observation well in feet.

Other Data and Remarks The aquifer tested is more than 1 mile long and about 0.4 miles wide.

SUMMARY
Purpose of Test Determination of aquifer coefficients

Aquifer Thickness 41 Aquifer Saturated Thickness 41

Specific Capacity 25.9 USGS Formation Yield Factor 63.2

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 89,000-111,000 gpd/ft Permeability 2170-2710 gpd/ft^2 Coefficient of Storage 0.0005-0.0004

Test Evaluation Fair, test may be in a leaky aquifer system, recharge barrier may be present in test site.

U.S. GEOLOGICAL SURVEY
GROUND WATER BRANCH
AQUIFER TEST COMPILATION

LOCATION
Well no 4S/1E-30K1 M Quadrangle Niles, 7.5 min., 1953

Location 2.7 miles southwest of Sunol, Alameda County

Ground Water Basin San Francisco Bay Area, Livermore Valley, 2-10.00

Geologic Formation

Date of Test March 13, 1959 7 hr. Agency Conducting Test California Department of Water Resources

Source of Test Data Calif. DWR or USGS, Sacramento

PUMPING DATA
Pump Type, Power Source and Rating

Use Discharge 680 gpm Maximum Drawdown ft. after min.

Other data Prepumping water-level 71.5 ft below land surface

WELL DATA

Well No.	Depth	Perforations	r*	Log	Analysis	Water-level measurements		
						Drawdown	Recovery	Historical
4S/1E-30K1			--			yes	no	yes
4S/1E-19JT1			6450			yes	no	yes
4S/1E-19IT1			6250			yes	no	yes
4S/1E-30AT1			2950			yes	no	yes
4S/1E-30BT1			3750			yes	no	yes
4S/1E-30E4			3700			yes	no	yes
4S/1E-30L1			2350			yes	no	yes

r* = distance from pumped well to observation well in feet

Other Data and Remarks

SUMMARY
Purpose of Test

Aquifer Thickness Aquifer Saturated Thickness

Specific Capacity Water Formation Yield Factor

Method of Analysis Nonequilibrium

Coefficient of Transmissibility 872,000 gpd/ft Permeability Coefficient of Storage --

Test Evaluation Poor, interference from other pumping

LIST OF AQUIFER-TEST COMPILATION REPORTS

Reference (fig. 1)

(A) McClelland, E. J., 1962, Aquifer-test compilation for the San Joaquin Valley, California: U.S. Geol. Survey open-file rept., 38 p.

(B) _____1963, Aquifer-test compilation for the Mojave Desert region, California: U.S. Geol. Survey open-file rept., 29 p. Revised December 1, 1964.

(C) _____1963b, Aquifer-test compilation for the upper Santa Ana Valley, area, San Bernardino County, California: U.S. Geol. Survey open-file rept., 29 p. Superseded by (G) below.

(D) _____1963c, Aquifer-test compilation for northern California: U.S. Geol. Survey open-file rept., 24 p. Revised May 1, 1965.

(E) _____1963d, Aquifer-test compilation for the Central Coastal region, California: U.S. Geol. Survey open-file rept., 53 p. Revised October 15, 1963.

(F) _____1963e, Aquifer-test compilation for the San Diego region, California: U.S. Geol. Survey open-file rept., 19 p.

(G) _____1964, Aquifer-test compilation for the Los Angeles and Santa Ana regions, California: U.S. Geol. Survey open-file rept., 127 p.

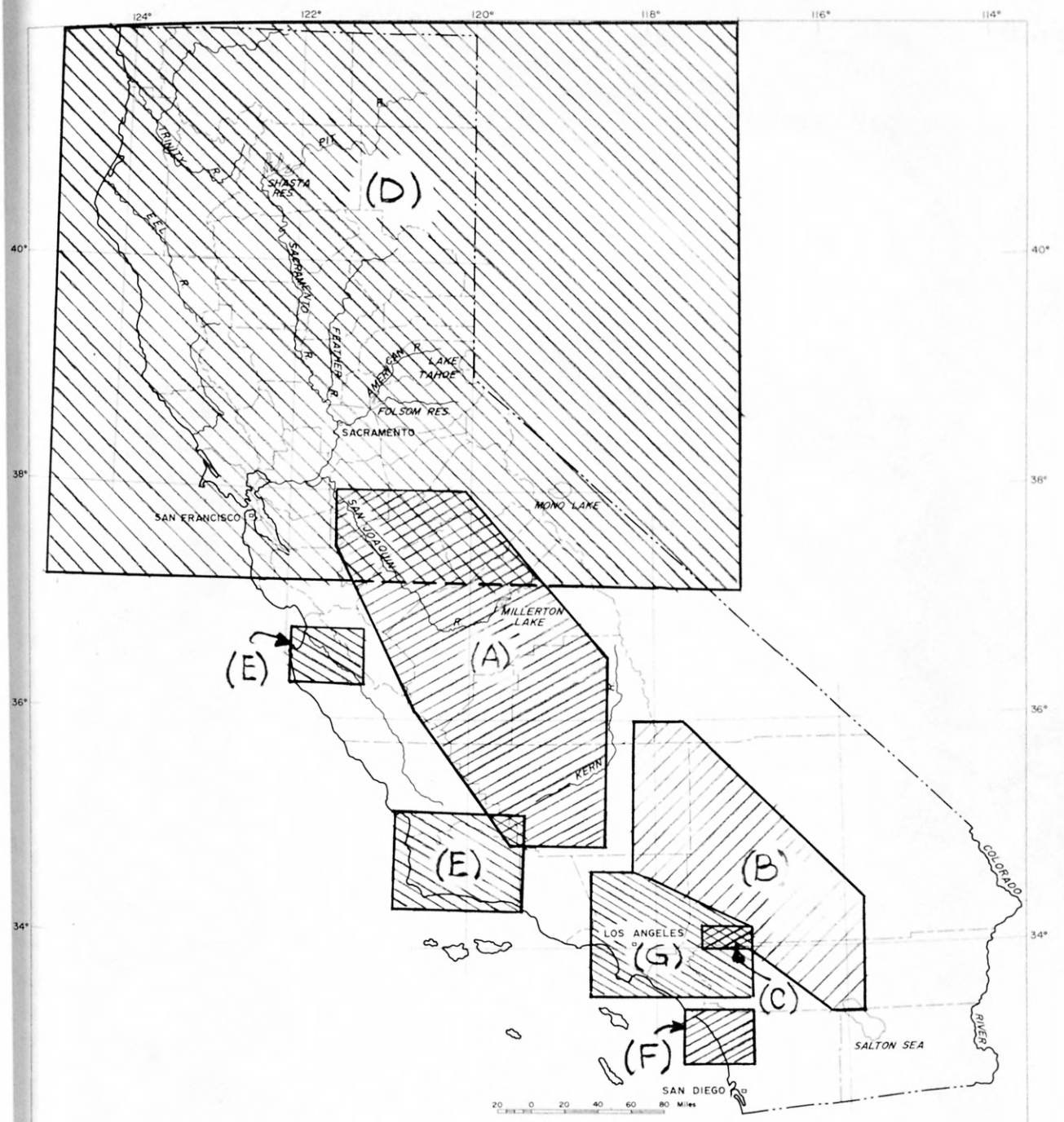

FIGURE 1.- INDEX MAP OF CALIFORNIA SHOWING LOCATION OF TEST AREAS

Letter in parentheses refers to list of aquifer-test compilation reports